Case Report

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DELAYED PRESENTATION OF POSTERIOR REVERSIBLE ENCEPHALOPATHY SYNDROME IN POSTPARTUM PERIOD

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ABSTRACT

Posterior reversible encephalopathy syndrome (PRES) is an uncommon neurological entity which presents with diverse neurological symptoms ranging from headache, seizure, visual symptoms with altered consciousness and focal signs. The hallmark of this condition is its reversibility. The etio-pathogenesis is attributed to vasogenic cerebral oedema seen in occipital and parietal lobes of brain. We hereby present this case of a multiparous lady presenting with altered sensorium postpartum. Characteristic findings on imaging helped us to form the diagnosis of PRES in this patient.

KEYWORDS:- Eclampsia, Posterior Reversible Encephalopathy Syndrome (PRES), Hypertension.

INTRODUCTION

A 23 year old multiparous lady was brought six days after delivery with loss of consciousness. She had spontaneously delivered a stillborn baby at 8 months gestational age following multiple episodes of antepartum seizures few hours prior to delivery. The lady did not have any antenatal check ups. Her general condition was poor, pulse rate was 110/min, with regular, and normal volume. Blood pressure noted was 180/110 mm Hg. Cardiovascular and respiratory systems were normal. Pelvic examination showed enlarged, soft uterus with open os and retained products of conception inside uterus. We intubated her as she required ventilatory support. A tentative diagnosis of antepartum eclampsia and sepsis was made pending further investigations.

INVESTIGATIONS

NCCT head showed hypertensive bleed. MRI brain with venogram was done as the patient showed no improvement in clinical parameters. T2 imaging showed bilaterally posterior parietooccipital hyper densities in the area of cortex and subcortical white matter showing consistently with posterior reversible encephalopathy syndrome. Ultrasound pelvis showed retained products of conception (Fig. 1).

MANAGEMENT

The patient was put on intravenous antibiotics, antihypertensives (Injection labetalol followed by oral medication), anti epileptics (levetiracetam) and mannitol. Suction and evacuation was done to remove placental bits and membranes. The patient improved on conservative management and could be extubated and shifted out of intensive care unit within 4 days of admission.

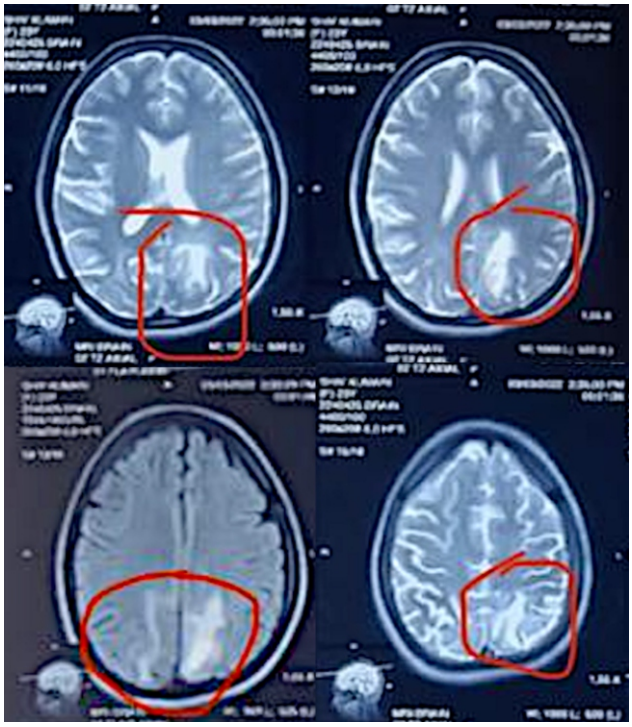

Fig. 1: showing posterior parieto-occipital hyper densities in the cortex and subcortical white matter on T2 Weighted FLAIR MRI sequence

DISCUSSION

PRES is clinically reversible neurological condition, usually is diagnosed by presence of white matter edema involving areas of parieto-occipital lobes. Rarely, the frontal and temporal lobes, cerebellar regions, basal ganglia, thalamus or brainstem may also be involved. It is usually associated with pre-eclampsia/ eclampsia, sepsis, renal disease, autoimmune diseases, drugs, chemotherapy, massive transfusion and shock (1).

It presents with seizures, headache, encephalopathy, focal neurological and unilateral/ visual disturbances features. In most cases, PRES gets resolved spontaneously and recovery within days to weeks. Although the condition is characterised by reversibility, rarely, permanent neurological impairment or maternal mortality can be a sequelae.2

Differential diagnosis of PRES are stroke, cerebral, meningoencephalitis venous thrombosis and demyelinating lesions of the brain.3 The presentation of PRES is very similar to stroke, however the clinical features of neurological deficit may not be restricted unilaterally. Early recourse to imaging can facilitate diagnosis. MRI is the imaging modality of choice due to avoidance of radiation exposure. Though, access to CT may be easier and it remains the best appropriate tool for preliminary rapid diagnosis. Our patient initially had a CT scan and on suspicion of PRES, was taken up for MRI examination.

PRES lesions appear as ill defined, subtle white matter high signal intensity areas on T2 and hypointense on T1, majorly in the posterior regions of the brain. The features are suggestive of vasogenic edema.4 Our patient had delivered elsewhere at a primary health centre and presented with altered sensorium preceded with eclampsia and severe hypertension. Therefore we kept the differential diagnosis of stroke, PRES and sepsis.

The case is reported to highlight the clinical and radiological features of PRES and to emphasise that the diagnosis should always be in the differential of focal neurological deficit. To have the best results, early diagnosis and initiation of proper treatment as well correction of a possible causative factor is essential.

CONCLUSION

Posterior reversible encephalopathy syndrome as its name indicates, it is a reversible condition, defined by acute neurologic symptoms and vasogenic edema involving parieto-occipital areas of brain.. Early diagnosis and treatment of underlying cause can improve the outcome and decrease the rate of permanent neurological sequeale.

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